## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/8/0, 27

Source:

Date Processed by STIC:

# ENTERED



**IFWO** 

RAW SEQUENCE LISTING DATE: 10/18/2004 PATENT APPLICATION: US/10/810,277 TIME: 10:00:39

Input Set : A:\GC794-2-seqlist.txt

4 <110> APPLICANT: Larenas, Edmund A.

Output Set: N:\CRF4\10182004\J810277.raw

```
Goedegebuur, Frits
         Gualfetti, Peter
 6
 7
         Mitchinson, Colin
 9 <120> TITLE OF INVENTION: Variant Humicola grisea CBH1.1
12 <130> FILE REFERENCE: GC794-2
14 <140> CURRENT APPLICATION NUMBER: US 10/810,277
15 <141> CURRENT FILING DATE: 2004-03-26
17 <150> PRIOR APPLICATION NUMBER: US 60/459,734
18 <151> PRIOR FILING DATE: 2003-04-01
20 <160> NUMBER OF SEQ ID NOS: 15
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27 <213> ORGANISM: Humicola grisea
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32 ggccagtgcc agaccgtcca ggcttccatc actctcgact ccaactggcg ctggactcac
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33 caqqtqtctq qetccaccaa ctgctacacg ggcaacaagt gggatactag catctgcact
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34 gatgccaagt cgtgcgctca gaactgctgc gtcgatggtg ccgactacac cagcacctat
35 ggcatcacca ccaacggtga ttccctgagc ctcaagttcg tcaccaaggg ccagcactcg
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36 accaacgtcg getegegtac ctacetgatg gaeggegagg acaagtatca gagtaegtte
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37 tatetteage ettetegege ettgaateet ggetaaegtt taeaetteae ageettegag
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38 ctcctcggca acgagttcac cttcgatgtc gatgtctcca acatcggctg cggtctcaac
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39 ggegeeetgt aettegtete catggaegee gatggtggte teageegeta teetggeaae
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40 aaggetggtg ccaagtacgg taccggetae tgegatgete agtgeeeeeg tgacateaag
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42 ggcgcgggcc gctatggtac ctgctgctct gagatggata tctgggaagc caacaacatg
                                                                          780
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43 getactgeet teacteetea eeettgeace ateattggee agageegetg egagggegae
44 tegtgeggtg geacetaeag eaacgagege taegeeggeg tetgegaeee egatggetge
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                                                                          960
45 gaetteaaet egtaeegeea gggeaacaag acettetaeg geaagggeat gaeegtegae
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46 accaccaaga agatcactgt cgtcacccag ttcctcaagg atgccaacgg cgatctcggc
                                                                         1080
47 gagatcaage gettetaegt ecaggatgge aagateatee ceaacteega gtecaceate
48 cccggcgtcg agggcaattc catcacccag gactggtgcg accgccagaa ggttgccttt
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49 ggegacattg aegaetteaa eegeaaggge ggeatgaage agatgggeaa ggeeetegee
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50 ggccccatgg teetggteat gtecatetgg gatgaccaeg cetecaacat getetggete
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51 gactegacet tecetgtega tgeegetgge aageeeggeg cegagegegg tgeetgeeeg
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52 accacetegg gtgteeetge tgaggttgag geegaggeee eeaacageaa egtegtette
                                                                         1380
                                                                         1440
53 tecaacatee getteggeee categgeteg acceptigetg gteteceegg egegggeaac
54 ggcggcaaca acggcggcaa ccccccgccc cccaccacca ccacctcctc ggctccggcc
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Input Set : A:\GC794-2-seqlist.txt
Output Set: N:\CRF4\10182004\J810277.raw

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	gtetecatgg acgecgatgg tggteteage egetateetg geaacaagge tggtgecaag	360
	tacggtaccg gctactgcga tgctcagtgc ccccgtgaca tcaagttcat caacggcgag	420
	gccaacattg agggctggac cggctccacc aacgacccca acgccggcgc gggccgctat	
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	gtcatgtcca tetgggatga ceaegeetee aacatgetet ggetegaete gaeetteeet gtegatgeeg etggeaagee eggegeegag egeggtgeet geeegaeeae etegggtgte	960 1020
		1020
	cctgctgagg ttgaggccga ggcccccaac agcaacgtcg tcttctccaa catccgcttc	
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	agegetggee ceaaggetgg cegetggeag cagtgeggeg geateggett cactggeeeg	1260
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98	20 25 30	
	Ser Trp Lys Lys Cys Thr Ala Gly Gly Gln Cys Gln Thr Val Gln Ala	
100		
	Ser Ile Thr Leu Asp Ser Asn Trp Arg Trp Thr His Gln Val Ser Gly	
102		
	B Ser Thr Asn Cys Tyr Thr Gly Asn Lys Trp Asp Thr Ser Ile Cys Thr	
	1 65 70 · 75 80	
	Asp Ala Lys Ser Cys Ala Gln Asn Cys Cys Val Asp Gly Ala Asp Tyr	
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108		

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DATE: 10/18/2004 TIME: 10:00:39

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Output Set: N:\CRF4\10182004\J810277.raw

PATENT APPLICATION: US/10/810,277

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111 112	Leu	Met 130	Asp	Gly	Glu	Asp	Lys 135	Tyr	Gln	Thr	Phe	Glu 140	Leu	Leu	Gly	Asn
	Glu 145	Phe	Thr	Phe	Asp	Val 150	Asp	Val	Ser	Asn	Ile 155	Gly	Cys	Gly	Leu	Asn 160
		Ala	Leu	Tyr	Phe 165	Val	Ser	Met	Asp	Ala 170	Asp	Gly	Gly	Leu	Ser 175	Arg
	Tyr	Pro	Gly	Asn 180		Ala	Gly	Ala	Lys 185		Gly	Thr	Gly	Tyr 190		Asp
	Ala	Gln	Cys 195		Arg	Asp	Ile	Lys 200		Ile	Asn	Gly	Glu 205	Ala	Asn	Ile
	Glu	Gly 210		Thr	Gly	Ser	Thr 215		Asp	Pro	Asn	Ala 220		Ala	Gly	Arg
123	Tyr 225		Thr	Cys	Cys	Ser 230		Met	Asp	Ile	Trp 235		Ala	Asn	Asn	Met 240
		Thr	Ala	Phe	Thr 245		His	Pro	Cys	Thr 250		Ile	Gly	Gln	Ser 255	
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133	Ile 305		Val	Val	Thr	Gln 310		Leu	Lys	Asp	Ala 315		Gly	Asp	Leu	Gly 320
		Ile	Lys	Arg	Phe 325		Val	Gln	Asp	Gly 330		Ile	Ile	Pro	Asn 335	
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	Cys	Asp	Arg 355		Lys	Val	Ala	Phe 360		Asp	Ile	Asp	Asp 365	Phe	Asn	Arg
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	_		_	Pro 420	Thr			_				Glu		Glu 430		Glu
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153	Gly 465		Asn	Pro	Pro	Pro 470		Thr	Thr	Thr	Thr 475		Ser	Ala	Pro	Ala 480
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### RAW SEQUENCE LISTING DATE: 10/18/2004

PATENT APPLICATION: US/10/810,277 TIME: 10:00:39

Input Set : A:\GC794-2-seqlist.txt
Output Set: N:\CRF4\10182004\J810277.raw

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162	<21	0 > SI	EQ II	ON O	: 4											
163	<21	1> L	ENGT	H: 50	7											
		2> T														
		3 > OI				icola	a gr	isea								
		0> SI						_								
168 169	Gln 1	Gln	Ala	Cys	Ser 5	Leu	Thr	Thr	Glu	Arg 10	His	Pro	Ser	Leu	Ser 15	Trp
	Lvs	Lvs	Cvs	Thr	Ala	Gly	Gly	Gln	Cys	Gln	Thr	Val	Gln	Ala	Ser	Ile
171	-	-	-	20		-	-		25					30		
172	Thr	Leu	Asp	Ser	Asn	Trp	Arg	Trp	Thr	His	Gln	Val	Ser	Gly	Ser	Thr
173			35			_		40					45	_		
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175		50					55					60				
176	Lys	Ser	Cys	Ala	Gln	Asn	Cys	Cys	Val	Asp	Gly	Ala	Asp	Tyr	Thr	Ser
177						70					75					80
178	Thr	Tyr	Gly	Ile	Thr	Thr	Asn	Gly	Asp	Ser	Leu	Ser	Leu	Lys	Phe	Val
179					85					90					95	
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181				100					105					110		
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185	7	130	D1	tr_ 1	<b>a</b>	14 - L	135	7 I _	7	a1	a1	140	0	7	m	D
		Tyr	Pne	vaı	ser		Asp	Ата	Asp	GIY	155	ьeu	ser	Arg	Tyr	
	145	7 cn	Tvc	ת בות	G1 57	150	Tvc	Фил	Clu	Thr		Tran	Carc	Asp	λla	160
189	GIY	ASII	цуь	Ата	165	АТА	цуъ	TYL	Gry	170	GIY	1 Y L	Cys	Asp	175	GIII
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191	Cyb	110		180					185	O-1	014			190	014	017
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195		210	-				215		_			220				
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198	Gly	Asp	Ser	Cys	Gly	Gly	Thr	Tyr	Ser	Asn	Glu	Arg	Tyr	Ala	Gly	Val
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205		290				_	295				_	300			_	
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207			_			310					315	~-3	_	_	_	320
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## RAW SEQUENCE LISTING DATE: 10/18/2004 PATENT APPLICATION: US/10/810,277 TIME: 10:00:39

Input Set : A:\GC794-2-seqlist.txt
Output Set: N:\CRF4\10182004\J810277.raw

209					325					330					225	
	Arg	C1=	Trea	77~ ]		Dho	C1	7.00	т1 о		7.00	Dho	7	7. ~~~	335	<b>a</b> 1
211		GIII	пур	340	Ala	Pile	GIY	Asp	345	Asp	Asp	Pile	ASII	350	гуѕ	GIY
	Gly	Mot	Tvra		Mot	C1.,	Tara	717		ת ד ת	C1	Dwo	Mot		T 0	7707
213	GTY	Met	дуs 355	GIII	Mec	GIY	пур	360	пец	нта	GIY	PIO		Val	ьец	vai
	Mot	602		Пост	7 00	7	ui a		Cox	7	Mot	T 011	365	T 0	71 ~~~	O
	Met		тте	пр	Asp	Asp		Ala	ser	ASII	мес		пр	ьeu	Asp	ser
215	Th x	370	Deco	17.01	7 ~~	717	375	~1	T	Dwa	<b>a</b> 1	380	a1	7	<b>a</b> 1	77-
	Thr	Pne	PIO	vaı	Asp		Ala	GIY	гля	Pro	_	Ala	GIU	Arg	GIA	
	385	D	ml	m1	0	390	77 J	D	7.1 -	<b>~1</b>	395	<b>~1</b>	7 T -	<b>~</b> 1		400
	Cys	PIO	TILL	THE		GIY	vai	PIO	Ala		vai	GIU	Ala	GIU		Pro
219		C	7	77-7	405	Dha	O	7	т1 -	410	Dla a	<b>a</b> 1	D	<b>T</b> 1 =	415	0
221	Asn	ser	ASII	420	vaı	Pne	ser	Asn		Arg	Pne	GIY	Pro		GIY	ser
	mhx	170 T	. ד ת		т о	Dwa	<b>~1</b>	77.0	425	7. ~~	<b>a</b> 1	a1	71	430	<b>01</b>	<b>a</b> 1
	Thr	vai		GIY	ьец	PLO	GIY		GIY	ASII	GIY	GIY		ASII	GIY	GIY
223	7 ~~	Dane	435	Desa	D	шЪ	mb	440	mb	0	0	77.	445	77-	m1	ml
	Asn		Pro	Pro	Pro	Thr		Thr	Thr	ser	ser		Pro	Ата	Thr	Thr
225		450	77-	0	7.7.	<b>~1</b>	455	T	*1.	a1	7	460	a1	<b>a1</b>	<b>a</b>	G1
	Thr	TIIT	Ala	ser	Ата		PIO	гуѕ	Ala	GIY	_	тър	GIII	GIN	Cys	_
	465	T1.	α1	Dha	mla sa	470	D-0.0	mls as	<b>71</b> ~	<b>~</b>	475	a1	D	m	m\	480
	Gly	тте	GIY	Pne		GIĀ	Pro	THE	GIN	_	GIU	GIU	Pro	Tyr		Cys
229	mb so	T	T	71 ~~~	485		<b>TD</b>	C1	a1	490	T				495	
	Thr	цуѕ	ьеи		Asp	пр	TAT	ser		Cys	ьеи					
231	<210	)	70 TI	500					505							
			-													
224	~') 7 7	1 ~ T T	アスナイリウルエ	J. C/	אר די											
				I: 50	07											
235	<212	2> T	PE:	PRT		i col :	ar	igoz								
235 236	<212 <213	2> T) 3> OF	PE:	PRT [SM:	Humi	icola	a gr:	isea								
235 236 238	<212 <213 <400	2> TY 3> OF 0> SE	(PE : RGAN] EQUEN	PRT ISM: NCE:	Humi 5		_		Glu	λκα	Uic	Pro	Sar	Lou	Sor	Trn
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VERIFICATION SUMMARY

DATE: 10/18/2004

PATENT APPLICATION: US/10/810,277

TIME: 10:00:40

Input Set : A:\GC794-2-seqlist.txt

Output Set: N:\CRF4\10182004\J810277.raw